

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-9 are presently active in this case, Claims 1, 3, and 4 having been amended and Claims 5-9 having been added by way of the present Amendment. The specification was amended on page 1 to correct a minor typographical error. Support for the new claims can be found throughout the specification, for example, in the figures and page 5, lines 1-19.

In the outstanding Official Action, Claims 1-4 were objected to for using alternative language. The Applicants note that the features of “a transverse wall” and “a dome” might be construed to cover different scopes of invention. The Applicants submit that the use of alternative language is acceptable (see, e.g., MPEP2173.05(h) III.), and that the alternative language utilized in the claims does not render the claims unclear. The claims have been amended to consistently utilize the alternative language throughout. Accordingly, the Applicants respectfully request the withdrawal of the objection to the claims.

Claims 1-4 were rejected under 35 U.S.C. 102(b) as being anticipated by Ramsey et al. (WO 02/08080 A1). For the reasons discussed below, the Applicants respectfully traverse the anticipatory rejection.

In the Office Action, the Ramsey et al. reference is indicated as anticipating each of Claims 1-4. However, the Applicants note that a claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As will be demonstrated below, the Ramsey et al. reference clearly does not

meet each and every limitation of the independent Claim 1.

Claim 1 of the present application recites, for the controlled dispensing of fluids from deformable containers, an automatically closing valve formed as a single piece of elastomeric material and comprising, among other features, a tubular skirt with an end closed by a dome or transverse wall in which cuts are provided to define flexible appendices therein, the edges of which are in mutual sealed contact in the closed valve, wherein when the valve is in its rest state, the dome or transverse wall is defined by curved surfaces re-entrant into the interior of the cavity in the tubular skirt which, at least in proximity to the dome or transverse wall, has an annular portion thereof of such a shape and thickness as to enable it to dilate and to flex elastically outwards when the dome or transverse wall passes from its form re-entrant into the skirt, to firstly a flat form and then to a form in which the appendices are flexed outwards, withdrawing from each other, under the thrust of the compressed fluid emerging from the container, the annular portion of the tubular skirt acting with elastic force on the dome or transverse wall to urge it towards its rest position curved in the interior of the tubular skirt and with the flexible appendices sealedly pressed against each other.

The Applicants respectfully submit that the Ramsey et al. reference does not disclose all of the features recited in Claim 1. For example, the Applicants submit that the Ramsey et al. reference does not disclose or even suggest an annular portion of a tubular skirt of such a shape and thickness as to enable it to dilate and to flex elastically outwards when a dome or transverse wall passes from its form re-entrant into the skirt, to firstly a flat form and then to a form in which appendices of the dome or transverse wall are flexed outwards, as recited in Claim 1. More specifically, in none of the embodiments of the Ramsey et al. reference does

the connecting wall 33 dilate and to flex elastically outwards when the cup-shaped valve head 32 is in a flat configuration or when the resilient tongues 62 are flexed outwards. Claim 1 of the present application recites an annular portion configured to dilate and to flex elastically outwards not for just at a portion of the opening movement, but when a dome or transverse wall passes from its form re-entrant into the skirt, to firstly a flat form and then to a form in which appendices of the dome or transverse wall are flexed outwards. Such a configuration is not taught or even suggested by the Ramsey et al. reference.

The Ramsey et al. reference begins by describing on page 2, lines 19-24, that in order to produce a satisfactory self-closing valve there is the need to obtain a sharp “flip” of the valve between its closed configuration and its open configuration and that the “flip” ensures that the valve snaps open and closed rather than having a smooth transition between the open and closed positions. The Ramsey et al. reference teaches that the “flip” of the valve head can be controlled by constraining the radial expansion of the valve head as the dispensing aperture opens, by providing an energizing ring restricting the radial expansion of the valve head as the head partially inverts, producing a more definite “flip,” thereby snapping the dispensing aperture to its open position. (See page 4, lines 4-23, of the Ramsey et al. reference.) Thus, the Ramsey et al. reference teaches that there is the need to ensure that the valve makes contact with the energizing ring before the dispensing aperture snaps open. (See page 5, lines 25-27.) When the internal pressure in the container is relieved, the valve head 32 snaps back to its concave position, sealing the dispensing aperture. (Page 8, lines 27-30.)

In the embodiment of the Figure 2A-2C of the Ramsey et al. reference, it is clear that the connecting wall 33 is prevented from dilating and flexing elastically outwards by the

energizing ring 5 through out the movement of the head 32. The connecting wall 33 does not dilate or flex elastically outward when the head 32 passes to firstly a flat form and then to a form in which the resilient tongues 62 are flexed outwards. Thus, this embodiment does not teach an annular portion of a tubular skirt of such a shape and thickness as to enable it to dilate and to flex elastically outwards when a dome or transverse wall passes from its form re-entrant into the skirt, to firstly a flat form and then to a form in which appendices of the dome or transverse wall are flexed outwards, as recited in Claim 1 of the present application.

In the alternative dispensing valve shown in Figures 3A and 3B of the Ramsey et al. reference, a valve head 32 is connected to a mounting ring by a flexible connecting wall 33. (Page 9, lines 7-8.) The valve head 32 moves axially a little distance by stretching of the connecting wall 33. (Page 9, lines 12-14.) The energizing ring 5 does not restrict axial movement of the valve head 32 but does make contact with the connecting wall 33 of the valve head as the connecting wall 33 expands radially outwards, restricting the movement thereof and providing the torque assist to “flip” the valve. (Page 9, lines 23-28.)

In the embodiment of the Figure 3A-3B of the Ramsey et al. reference, it is clear that the connecting wall 33 is prevented from dilating and flexing elastically outwards by the energizing ring 5 through the majority of the movement of the head 32. While outward flexing is initially allowed, the connecting wall 33 does not dilate or flex elastically outward when the head 32 passes to firstly a flat form and then to a form in which the resilient tongues 62 are flexed outwards. Thus, this embodiment does not teach an annular portion of a tubular skirt of such a shape and thickness as to enable it to dilate and to flex elastically outwards when a dome or transverse wall passes from its form re-entrant into the skirt, to firstly a flat

form and then to a form in which appendices of the dome or transverse wall are flexed outwards, as recited in Claim 1 of the present application. In fact, the Applicants submit that if the connecting wall 33 were configured to dilate or flex elastically outward when the head 32 passes to firstly a flat form and then to a form in which the resilient tongues 62 are flexed outwards, then the invention described in the Ramsey et al. reference would not operate in the intended manner, since the energizing ring would not restrict the radial expansion of the valve head as it partially inverts, thus preventing a more definite "flip," as taught on page 4, lines 4-23, of the Ramsey et al. reference.

The present invention advantageously provides a configuration that can not only ensure a sealed closure under rest conditions, but also enable a gradual valve opening with easy control of the speed and quantity of fluid dispensed therethrough. As noted on page 6 of the specification, the present invention provides a structure that can prevent a "spurt" that sometimes occur with other valves that open suddenly and uncontrollably, such as with the "flip" opening of the invention described in the Ramsey et al. reference.

As the Ramsey et al. reference does not disclose all of the limitations recited in Claim 1, the Applicants respectfully request the withdrawal of the anticipation rejection of Claim 1.

Claims 2-4 are considered allowable for the reasons advanced for Claim 1 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed nor suggested by the applied references when those features are considered within the context of Claim 1.

Newly added Claims 5-9 are considered allowable as they recite features of the invention that are neither disclosed nor suggested by the references of record. Claims 5-7 are

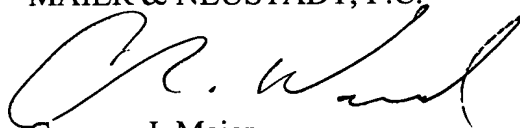
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considered to be allowable for at least the reasons set forth above with respect to Claim 1, from which they depend. Claim 8 is believed to be allowable as it recites features that are not disclosed in the cited reference, for example, a closing valve comprising, among other features, a tubular skirt having a first portion attached to a wall, where the first portion has a thickness that is smaller than a thickness of a middle portion of the tubular skirt. Claim 9 is believed to be allowable as it recites features that are not disclosed in the cited reference, for example, a closing valve comprising, among other features, a tubular skirt has an outer surface, where the tubular skirt has a recessed portion where the outer surface thereof is recessed, and where the recessed portion is at an end of the tubular skirt adjacent to a wall.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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